



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,294	08/27/2001	Samuel Anderson	36-1493	4036
23117 7590 08/05/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
FRENEL, VANEL				
ART UNIT		PAPER NUMBER		
3687				
MAIL DATE		DELIVERY MODE		
08/05/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/914,294

**Applicant(s)**

ANDERSON ET AL.

**Examiner**

VANDEL FRENEL

**Art Unit**

3687

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date: \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

Notice to Applicant

1. This communication is in response to the Appeal Brief Filed on 5/23/08. Claims 1-22 are pending.
2. In view of the Appeal Brief filed on 3/7/07 PROSECUTION IS HEREBY REOPENED as set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options;

(1) file a reply under 37 C.F.R 1.111 (if this Office action is non-final) or a reply under 37 C.F.R 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 C.F.R 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 C.F.R 1.193) (b)(2).

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites in line 2 the limitation of "the use of a telecommunication network".

Claim 1 recites in line 6 the limitation of "the format of the bill image".

Claim 22 recites in line 1 the limitation of "the of a telecommunication network".

Claim 22 recites in line 5 the limitation of "the format of the bill image".

There are insufficient antecedent basis for these limitations in the claims.

Appropriate correction is needed.

### ***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1- 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-22 recite a process comprising the steps of generating, assigning, and processing. Based on Supreme Court precedent, a proper process must be tied to another statutory class or transform underlying subject matter to a different state or thing (*Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780,787-88 (1876)). Since neither of these requirements is met by the claim, the method is not considered a patent eligible process under 35 U.S.C. 101. To qualify as a statutory process, the claim should positively recite the other statutory class to which it is tied, for example by identifying the apparatus that accomplished the method steps or

positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardy et al. (5,287,270) in view of Cool (5,218,632).

(A) As per claim 1, Hardy discloses a method of generating a bill image in a computer-implemented billing system, the billing system being configured to generate bills relating to the use of a telecommunication network, the method including the steps of assigning a charge type identifier (CTI) to each of a number of usage records (See Hardy, Col.8, lines 63-68); and processing each usage record in dependence on its assigned CTI to produce a bill image (See Hardy, Fig.1; Col.8, lines 55-68 to Col.9, line 16).

Hardy does not explicitly disclose that the method having a format of the bill image being dependent on the CTIs of the usage records.

However, this feature is known in the art, as evidenced by Cool. In particular, Cool suggested that the method having a format of the bill image being dependent on the CTIs of the usage records (See Cool, Col.5, lines 16-63; Col.13, lines 37-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Cool within the system of Hardy with the motivation of providing a billing record within the charging system of a stored program controlled communications exchange operated by a telecommunications administration in which charging analysis is performed on each call and data pointers to first and second locations are produced based upon the type of call (See Cool, Col.3, lines 29-34).

(B) As per claim 2, Cool discloses a method according to claim 1 in which a CTI is assigned to each usage record in accordance with a set of rules (See Cool, 5, lines 16-63; Col.13, lines 37-49).

(C) As per claim 3, Hardy discloses a method according to claim 1 or 2, in which the processing of each usage record includes the step of assigning a unique sort key to the usage record in dependence on its CTI for defining the relative position of the usage record in the bill image (See Hardy Figs.28-1 and 28-2; Col.24, lines 3-68).

(D) As per claim 4, Cool discloses a method according to claim 2, in which the sort key is generated in dependence on the CTI and a number of fields associated with the usage record (See Cool, Figs 6-7; Col.6, lines 1-40).

(E) As per claim 5, Hardy discloses a method according to claim 3 or 4, in which the sort key is generated in accordance with a set of rules (See Hardy, Col.24, lines 3-34).

(F) As per claim 6, Cool discloses a method according to any of claims 3 to 5, in which the usage subsequently sorted according to their respective sort keys to create a sorted list (See Cool, Figs 6-7; Col.6, lines 1-40).

(G) As per claim 7, Cool discloses a method according to claim 6, in which the sorted list is processed to generate, when appropriate, and in dependence on the CTIs of the usage records, a number of text inserts to precede or follow a usage record or group of usage records in the bill image (See Cool, Col.13, lines 36-49).

The motivation for combining the respective teachings of Hardy and Cool are as discussed in the rejection of claim 1 above, and incorporated herein.

(H) As per claim 8, Hardy discloses a method according to claim 7, in which each CTI is associated with a position in a text map, in which a change in position in the text map triggers the generation of a text insert, and in which generating the text inserts comprises the steps of determining the text map position for a usage records CTI,

comparing the position with that determined for the previous usage record, and inserting an appropriate text insert if a change in position in the text map occurs (See Hardy Figs 29-1 to 29-2; Col.24, lines 34-68 to Col.25, lines 28).

The motivation for combining the respective teachings of Hardy and Cool are as discussed in the rejection of claim 1 above, and incorporated herein.

(I) As per claim 9, Hardy discloses a method according to claim 8, in which the text map is a tree hierarchically defining the order in which text inserts are to appear in the bill image (See Hardy Figs 29-1 to 29-2; Col.24, lines 34-68 to Col.25, lines 28).

(J) As per claim 10, Cool discloses a method according to claim 9, in which the text map position for each CTI is a leaf node in the tree (The Examiner interprets program to contain a leaf node in the tree since it is a part of programming language or software See Cool, Col.13, lines 1-36).

The motivation for combining the respective teachings of Hardy and Cool are as discussed in the rejection of claim 1 above, and incorporated herein.

(K) As per claim 11, Cool discloses a method according to claim 9 or 10, in which each branch between a parent node and a child node in the tree represents text to be inserted in the bill image (See Cool, Col.13, lines 36-49).

The motivation for combining the respective teachings of Hardy and Cool are as discussed in the rejection of claim 1 above, and incorporated herein.



(L) As per claim 12, Cool discloses a method according to any preceding claim, including the step of generating a bill image record in the bill image for a number of the usage records, the format and content of each bill image record being dependent on the CTI of the respective usage record or usage records (See Cool, Col.13, lines 36-49).

The motivation for combining the respective teachings of Hardy and Cool are as discussed in the rejection of claim 1 above, and incorporated herein.

(M) As per claim 13, Hardy discloses a method according to claim 12, in which a bill image record is generated for a plurality of usage records having a common CTI (See Hardy Figs.28-1 and 28-2; Col.24, lines 3-68).

(N) As per claim 14, Hardy discloses a method according to any preceding claim, in which a number of hidden records are generated in the bill image, the hidden records containing data used to create the bill image (See Hardy Figs.28-1 and 28-2; Col.24, lines 3-68)..

(O) As per claim 15, Hardy discloses a method according to claim 14, in which the data contained in the hidden records enables the disassembly, modification and reassembly of the bill image to create a fresh bill image (See Hardy Figs.28-1 and 28-2; Col.24, lines 3-68).

(A) As per claim 16, Hardy disclose a method further comprising: generating a time line over at least a part of which a discount scheme applies, dividing the time line into a number of segments each of which corresponds to a period during which a respective version of the discount scheme was operative, accumulating charges from usage records for calls made during each segment, calculating an appropriate discount from each of the accumulated charges, generating a usage record for each discount, and subsequently assigning a CTI to each of the generated usage records to create a number of discount usage records (See Hardy, Fig.1;Col.12, lines 52-68 to Col.13, line 16; Col.24, lines 34-68 to Col.25, line 28).

(B) As per claim 17, Hardy discloses a method in which call usage records are accumulated by call type, the call type being obtained for the call usage records from a mapping of CTI to call type (See Hardy Figs.28-1 and 28-2; Col.24, lines 3-68).

(C) As per claim 18, Hardy discloses a memory comprising a data structure therein, the data structure defining an electronic bill image having a number of records, each record having an assigned charge type identifier, in which the format of the bill image is dependent on the charge type identifiers of the respective records, the bill image being created in accordance with the method of claim 1 (See Hardy Figs.28-1 and 28-2; Col.24, lines 3-68).

(D) As per claim 19, Hardy discloses computer implemented billing system including at least one computer memory storing computer executable instructions for performing the method of claim 1 (See Hardy Figs.28-1 and 28-2; Col.24, lines 3-68).

(E) As per claim 20, Hardy discloses a system including a computer readable memory storing a set of rules used to assign a CTI to a usage record (See Hardy Figs.28-1 and 28-2; Col.24, lines 3-68).

(F) As per claim 21, Hardy discloses a system including a computer readable memory storing a set of rules used to generate a sort key for usage record (See Hardy, Col.29, lines 50-68; Col.30, lines 35-68).

(G) As per claim 22, Hardy discloses a computer implementing billing system for generating bills relating to the use of a telecommunications network arranged to perform the followings operations: assign a charge type identifier (CTI) to each of a number of usage records (See Hardy, Col.8, lines 63-68); and, process each usage record in dependence on its assigned CTI to produce a bill image, the format of the bill image being dependent on the CTIs of the usage records (See Hardy, Fig.1; Col.8, lines 55-68 to Col.9, line 16).

Hardy does not explicitly disclose that the system having a format of the bill image being dependent on the CTIs of the usage records.

However, this feature is known in the art, as evidenced by Cool. In particular, Cool suggested that the system having a format of the bill image being dependent on the CTIs of the usage records (See Cool, Col.5, lines 16-63; Col.13, lines 37-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Cool within the system of Hardy with the motivation of providing a billing record within the charging system of a stored program controlled communications exchange operated by a telecommunications administration in which charging analysis is performed on each call and data pointers to first and second locations are produced based upon the type of call (See Cool, Col.3, lines 29-34).

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not the applied prior art teaches method and apparatus for processing billing transactions (6,493,680).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanel Frenel whose telephone number is 571-272-6769. The examiner can normally be reached on 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S.Gart can be reached on 571-272-3955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3687

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vanel Frenel/  
Examiner, Art Unit 3687

August 4, 2008